

Year 2000 and 2001 Priority Actions

Sacramento River Mercury Source ID and Control/Remediation Study - 50

1. General Description of the Action

Identify and control sources of mercury in the Sacramento River Watershed upstream of the Delta.

Mercury contamination of fish in the San Francisco Bay Delta estuary constitutes a health threat to humans. Mercury is a conservative neurotoxin that bioconcentrates through the food web. Some forms of non-bioavailable mercury is deposited in wetlands where it is converted to a bioavailable form. More or restored shallow water habitat could possibly enhance the rate at which mercury is taken up into the food web.

Mercury source control studies are being funded through the Ecosystem Restoration Program (to be let in 1999 at the \$3.7 million level). An additional \$3.0 million is needed to conduct early remedial activities on mercury sources that contribute to mercury in the food web of the delta.

Waste mercury, used in gold mining operations, continues to flow down tributaries to the Sacramento River, contributing to the mercury contamination problem in the delta. Industrial and municipal sources of mercury must also be studied.

This action would benefit the Bay-Delta ecosystem by reducing mercury available for fish.

2. Cost Estimates

Approximately \$300,000 is needed the first year as existing data is reviewed and further study areas are identified. About \$800,000 dollars could be spent each subsequent year in monitoring and remediation. Monitoring of selected mercury species should be continue for several years. These activities should be coordinated with current mercury projects funded by CALFED Category 3.

CALFED Staff costs will be for a person on a 1/4 to 1/2 time basis to oversee and participate in study design and evaluation. Much of the rest of the staff requirements will be with the Regional Water Quality Control Board, which has indicated their support.

3. Program Administration and Governance

The CALFED Water Quality Program should oversee the coordination of agencies and approval of funds spent. Contracts for work should be let through the Regional Water Quality Control Board, Central Valley Region or the US Geological Survey for the study portions.

4. Program Coordination

The State and Regional Water Boards could provide scientists to assist in stream assessment within the watershed. The Regional Board has been active with the Sacramento River Watershed Group and the Sacramento River Monitoring Program, both of which are stakeholder groups that have looked at the impacts of mercury and mercury remediation within the watershed.

The USGS has scientists that have worked on mercury issues in this and other regions.

5. Schedule

There currently exist many parcels of data that need to be analyzed to identify potential sources. Data analysis could begin in the fall of 1999. Sampling data could begin during spring runoff, the suspected largest contributor to mercury loading in the Sacramento River. As new data is analyzed, sources of mercury may be found.

If gold abandoned gold mines are found to be remedial cost effective source of mercury, the mines could be cleaned up. Partial mine remediation could encumber the State to fully remediate an abandoned mine as though the State owned it. While State Law allows a State Agency to provide corrective work on a mine site, the Federal Government has no such provision. Mine remediation should be done with a minimum of a signed "hold harmless" agreement or with Federal Environmental Good Samaritan protection.